PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

DAVID MCKINNON

CASE NO.: DC7000USCNT APPLICATION NO.: 10/808854

CONFIRMATION NO.: 6675 GROUP ART UNIT: 1714

EXAMINER: CAIN FILED: March 24, 2004

FOR: SOLVENT-BASED RECOVERY AND RECYCLE OF POLYAMIDE MATERIAL

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with 37 C.F.R. §§1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office the information listed on the enclosed PTO/SB/08A and/or PTO/SB/08B forms. A copy of the information, if required, is also enclosed. Consideration of the information is requested under 37 C.F.R. § 1.56 and this information is submitted in accord with the provisions of §1.97(c): after the period specified in §1.97(b) but before the mailing of a Final Office Action, or a Notice of Allowance, or any other action that closes prosecution.

The PTO is authorized to charge the fee set forth in 37 C.F.R. §1.17(p) to Deposit Account No. **04-1928** (E. I. du Pont de Nemours and Company) in order to complete the requirements for consideration of this Information Disclosure Statement.

Respectfully submitted,

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Dated: May 30, 2007

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PTO/SB/08a (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	10/808854
Filing Date	March 24, 2004
First Named Inventor	David Mckinnon
Art Unit	1714
Examiner Name	
Attorney Docket Number	DC7000USCNT

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code [2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 2,348,751	05-16-1944	Peterson	
		US- 2,840,606	06-24-1958	Miller	
		US- 2,872,420	02-03-1959	Kruyff	
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Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code [3]-Number [4]-Kind Code [5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T [6]
		DE 12 35 924				
		DE 43 09 427				
		JP 52-113938				
		GB 1 017 985		Great Britain		
		WO 94/08942	04-28-1994	E.I. Dupont		

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2 of 2

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		788 009		Canada		

Examiner Signature		Date Considered	

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

79,436P II-A, I-E4, V-F3, X-E5 25.7.62 BADI

RECOVERY OF LACTAMS FROM POLYAMIDES.

B500

GE. 1,235,924 elg. (Non-Con.) 25.7.62 (GE) as B 68,167 Pub. 9.3.67 Badische Anilin.

NEW

Recovery of lactams from polyamides consisting wholly or partially of ω-aminocarboxylic acids, by heating to 225-350°, in the presence of a depolymerisation catalyst consisting of a mixture of phosphoric and boric acids or anhydrides or a compound that gives boric acid under the reaction conditions, in a stream of steam. The ratio of phosphoric acid to boric is 1:20 to 20:1, pref. 1:3 to 3:1, and 0.1-5% by wt. of catalyst is used, based on the wt. of polyamide. The lactam may be recovered by fractional condensation of the vapours.

ADVANTAGES

Higher volume-time-yields than prior art processes. It can be carried out continuously.

EXAMPLE

1000 pts. polycaprolactam were melted with 1.5 pts. phosphoric acid and 3 pts. boric acid, and the mixture heated to 270-280°. Steam is passed in at 250°. The vapours leaving the vessel were cooled to 100-105° when ε-caprolactam containing ca. 30% water crystallised. This was extracted and the extract distilled to give pure lactam.